



December 22, 2009

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Portals II, Room TW-A325  
Washington, DC 20554

**RE: GN Docket 09-47, 09-51 and 09-137 - National Broadband Plan**

Dear Ms. Dortch:

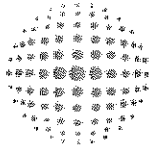
USTelecom electronically filed the attached letter to the FCC Chairman and Commissioners today. In accordance with FCC Rule 1.206(b)(1),<sup>1</sup> please include this notice and the attached letter for inclusion in the public record. Please feel free to contact the undersigned with any questions.

Sincerely,

Jonathan Banks  
Senior Vice President, Law and Policy

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<sup>1</sup> 47 C.F.R. § 1.1206(b)(1)



UStelecom  
THE BROADBAND ASSOCIATION

WALTER B. MCCORMICK, JR.  
President and Chief Executive Officer

December 22, 2009

Chairman Julius Genachowski  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Portals II, Room TW-A325  
Washington, DC 20554

Commissioner Michael Copps  
Federal Communications Commission  
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Commissioner Robert McDowell  
Federal Communications Commission  
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Commissioner Mignon Clyburn  
Federal Communications Commission  
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Commissioner Meredith Baker  
Federal Communications Commission  
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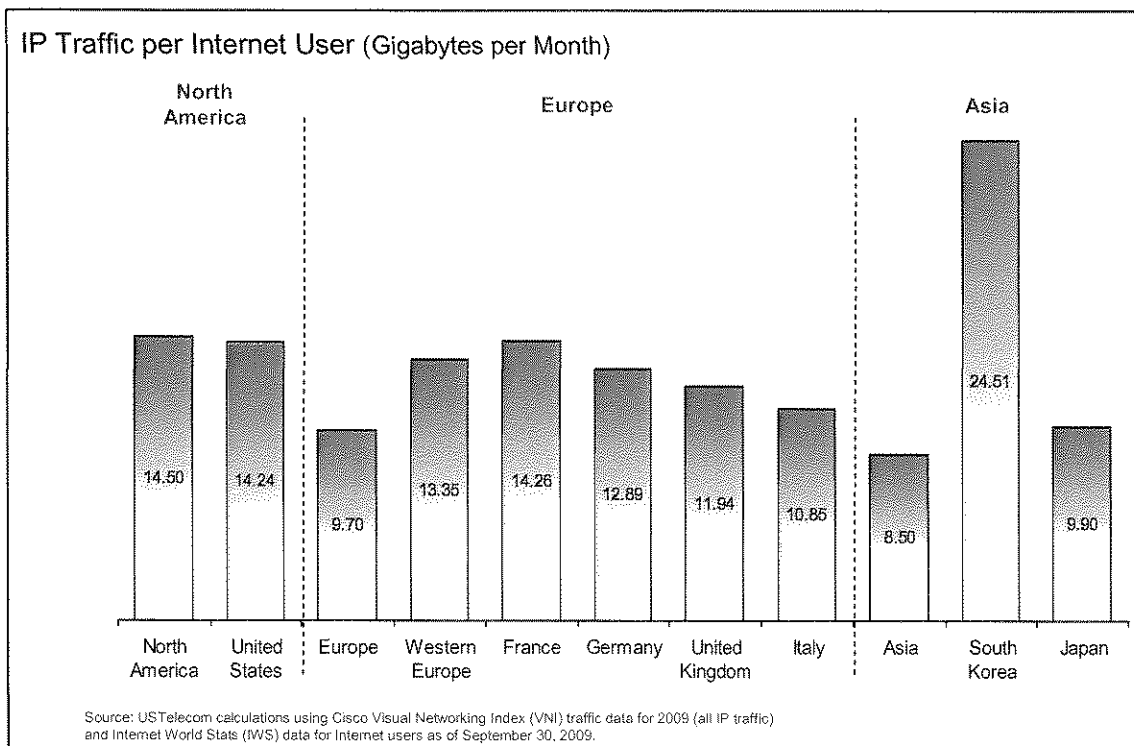
Dear Mr. Chairman and Commissioners:

To-date, international broadband comparisons seem to have largely ignored actual usage of the Internet in favor of more theoretical measurements based on capacity. We believe that the amount that Internet consumers are actually making use of their broadband connections to pull value from the Internet - whether education, government services or entertainment – provides a more real-world, practical measure of how successfully a country's broadband networks and regulatory environment are providing consumers with what they want. By this more consumer-focused measure, U.S. Internet users and our broadband networks are among the world leaders.

By taking Internet traffic data from Cisco's Visual Networking Study and dividing it by the number of Internet users in particular countries and regions, we have constructed a rough measure of the amount of usage per Internet consumer, as described in more detail in the attached Appendix. As shown below, on a regional basis, North America and the United States are the heaviest users of the Internet, surpassing Europe and Asia. Comparisons of smaller areas is limited by the data, for example, a breakdown of U.S. data by state is not available, however, the data that is broken out show that the United States (taken as a whole) and France are essentially tied for second for the most intensive use of the Internet, surpassed only by S. Korea, with Germany, the United Kingdom and Japan lagging.

Chairman Julius Genachowski  
Commissioner Robert McDowell  
Commissioner Michael Copps  
Commissioner Clyburn  
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### Internet Usage: Comparison of Selected Regions and Countries



U.S. broadband networks support among the very highest rates of Internet usage in the world. Building networks that encourage and support this level of real world value is a mark of high levels of U.S. carrier investment, competitive pressures here created by widely deployed competing broadband platforms that are not typical of other countries and of our successful pro-investment, pro-competition Internet policies. As we move forward to solve the adoption and deployment issues that remain, we should be careful not to undermine the successes of the current broadband framework at creating networks that enable this level of Internet usage.

Sincerely,

Walter B. McCormick, Jr.

## **Appendix: Usage as an Alternative Broadband Ranking Criterion**

Broadband rankings frequently focus on penetration, capacity, and price. According to several studies (see OECD, Berkman Center) the U.S. ranks in the middle of the pack on these measures. There are however, other relevant measures which are often disregarded, on which the U.S. ranks very highly, such as usage (i.e., actual consumption). We believe that such analyses and rankings would paint a more accurate picture if they took into account these factors as alternative or additional criteria.

### How Can Usage Data Improve Rankings and Studies?

Usage could improve rankings and studies in several ways. First, usage, or bits consumed, is a better proxy for value received than simple capacity purchased, either advertised or actual. Assuming legitimate pricing (or revenue) data were available, prices could be adjusted to account for bandwidth actually consumed, in other words, what did users get for their money? Furthermore, usage – including business usage – may be a more precise explanatory variable than, say subscribers or penetration, when attempting to assess the economic impacts of Internet usage.

There are, no doubt, challenges associated with usage data. For example, if using it to adjust prices or revenues, it remains difficult to find meaningful pricing and revenue data (much pricing data does not account for differential costs structures of providers based on different regulation, subsidy and public investment levels, demographics, geography, density, and allocation of costs among shared network services). Usage data also boils everything down to bits, not distinguishing among applications which may have differential economic and consumer benefits.

Nonetheless usage data has clear advantages over other metrics that are commonly used in broadband rankings. Therefore, usage data could be used in place of or as a complement to some of these other metrics.

### Data Approximation: Consumption per Internet User

Below we provide a rough approximation of bandwidth consumed per Internet user across several regions and selected countries. In order to be useful, usage data must be normalized. For example, when comparing country performance, it may make sense to normalize consumption per Internet user, as opposed to per capita, because variation in Internet adoption rates across countries can be quite significant.

- Cisco publishes projected global IP traffic data and forecasts from 2008-2013 for the various regions of the world and selected countries. Regional aggregates are available from the Cisco Visual Networking Index: Forecast and Methodology, 2008–2013 (June 9, 2009). Selected country data are available from Cisco VNI Forecast Widget for the Cisco Visual Networking Index IP Traffic Forecast, 2009 at [http://www.ciscovni.com/vni\\_forecast/index.htm](http://www.ciscovni.com/vni_forecast/index.htm) (visited November 16, 2009).

- 2009 Internet user data by region and country are available from Internet World Stats (IWS) at <http://www.internetworldstats.com/stats.htm> (visited November 16, 2009). The Internet user data include all users, regardless of how they access the Internet (home, business, or public hot spot).

Using these data sources, we can *approximate* average consumption per user in each region. Specifically, we divide the Cisco regional global IP traffic projections, in Petabytes per month by the IWS number of Internet users in that region, in millions, as of September 2009. The data sources provide slightly different regional categories, which must be aggregated as shown in the table below. The traffic data we use includes *all* IP traffic – business and residential; fixed and mobile; IP voice, video, and data; and private and public Internet. This is necessary for two reasons. First, all of these types of traffic contribute to the economic and consumer impacts of IP data usage. Second, the IWS Internet user figures do not distinguish business and residential users.

Region	Global IP Traffic (Cisco, Petabytes per Month, 2009)	Internet Users (IWS, millions as of 9/30/09)	Consumption per User (Gigabytes per Month)
North America	3,666	252.9	14.5
Europe	4,044*	418.0	9.7
Western Europe	3,623	n/a	--
Central and Eastern Europe	421	n/a	--
Asia	6,453*	759.3*	8.5
Asia Pacific	5,503**	738.3***	--
Japan	950	n/a	--
Oceania/Australia	n/a	21.0	--
Latin America / Caribbean	503	179.0	2.8
Mid East and Africa	165	124.8*	1.3
Middle East	n/a	57.4	--
Africa	n/a	67.4	--
Total	14,831	1,734.0	8.6

\* Figures summed from subcategories provided in original sources.

\*\* Includes Oceania/Australia.

\*\*\* Includes Japan.

On a regional level, North America consumes a significantly larger amount of bandwidth than other regions: 14.5 Gigabytes per user per month compared to a global average of 8.6. Of course, a legitimate criticism of a regional approach is that it does not account for variation within regions – most notably Western Europe versus Eastern and Central Europe. We can get selected country data from Cisco and we can get those countries' Internet Users from IWS. We can also create aggregates of Internet Users for Western Europe and Central and Eastern Europe. However, we cannot check our assignment of countries to either Western Europe or Eastern and Central Europe against Cisco, because Cisco has not published its categorizations for Europe. In the table below, we list some country estimates as well as the estimated breakout for Europe. The U.S. figure is 14.2

Gigabytes per user per month. Since the user data did not break out Western and Eastern Europe, we estimate Western Europe at 13.4 Gigabytes per user per month.

<b>Selected Region / Country</b>	<b>Global IP Traffic (Cisco, Petabytes per Month, 2009)</b>	<b>Internet Users (IWS, millions as of 9/30/09)</b>	<b>Consumption per User (Gigabytes per Month)</b>
United States	3,242.6	227.7	14.24
Western Europe*	3,623.0	271.4	13.35
Germany	699.2	54.2	12.89
France	614.6	43.1	14.26
United Kingdom	557.4	46.7	11.94
Italy	325.9	30.0	10.85
Japan	950.0	96.0	9.90
South Korea	918.7	37.5	24.51

One final caveat: regions where there is widespread legacy multi-channel video adoption (i.e., North America) undercount a great deal of video traffic currently delivered via radio frequencies. Should such consumption be ignored because it is not currently delivered via IP? For that matter, should non-IP voice traffic be excluded because it is delivered by a different kind of network? Arguments could be made either way, given the enhanced capabilities of IP networks, but often the video or voice service is not consumed any differently on an IP versus a legacy network.

\* While Cisco provides aggregate data for Western Europe and selected countries, it does not provide data for several Western European countries that are generally ranked highly in broadband rankings, such as Finland, Sweden, Denmark, and the Netherlands.